

# **THE EFFECT OF SILVER NITRATE NANOPARTICLE SOLUTION AS AN ANTIVIRAL ON EGG DROP SYNDROME 1976 VIRUS IN EMBRYONATED DUCK EGGS**

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## **ABSTRACT**

This research was conducted to find out the effect of silver nitrate nanoparticle solution to inhibit replication process of Egg Drop Syndrome 1976 Virus in embryonated duck eggs using two different procedures (first procedure: mixing silver nitrate nanoparticle solution with EDS 76 virus pre inoculation until 2 hours and second procedure: embryonated duck eggs was infected with EDS 76 virus and then giving silver nitrate nanoparticle treatment were given after 48 hours incubation period). The method used for synthesized silver nitrate nanoparticle by chemical reduction using tri sodium citrate as reductor and silver nitrate as precursor. The dosage of silver nitrate nanoparticle in this research were 0 ppm (control), 10 ppm, 20 ppm, and 50 ppm. The result of HA titer between two procedures was analyzed used ANOVA (Analysis of Variance) then was proceed to Tukey test in order to determine significant differences. The result showed that there was no significant different between two procedures (control, 10 ppm, 20 ppm, and 50 ppm). The optimum effect of silver nitrate nanoparticle solution to inhibit replication process was 50 ppm on two procedures.

**Keywords :** Egg Drop Syndrome 1976 Virus, silver nitrate nanoparticle, embryonated duck eggs, HA titer